



PROHIMET: *Iberoamerican Network for Monitoring and Forecasting of Hydrometeorological Phenomena*

<http://www.prohimet.org>

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Table of content based on some slides

– Titles of several slides fitted to the template for the 3rd GPM-GV

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Valencia (Spain) 2004: a special event

- Ibero-America Workshop on Hydrometeorological Information and Forecasting Systems
 - 128 experts from 22 countries of Ibero-America
 - Argentina, Bolivia, Bolivia, Brazil, Colombia, Costa Rica, Cuba, Chile, Ecuador, El Salvador, Spain, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, Portugal, Dominican Republic, Uruguay and Venezuela
 - Promoted by World Meteorological Organization (Weather, Climate and Water)
 - International Flood Initiative

Valencia 2004 (Spain): Link between Meteorology and Hydrology

- Some of the conclusions:
 - A close cooperation between meteorologist and hydrologist is **needed**
 - Institutional **difficulties** hinder the cooperation between Meteorological and Hydrological Services
 - Some unsolved technical problems due to different
 - Spatial and time **working scales**
 - Operational **customs**
 - **Education and training** of the professionals of these institutions

Valencia (Spain) 2004: Proposals

- One of the proposals was the creation of a Thematic Network:

PROHIMET: Ibero-American Network on monitoring and forecasting of hydrometeorological phenomena

Initiated in 2005 and supported by:

- Ibero-American Program on Science and Technology for Development (CYTED)
- World Meteorological Organization (Weather, Climate and Water)



CYTED



WMO

Nowadays it gathers experts from 16 countries:

Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, Spain, Guatemala, Mexico, Peru, Dominican Republic, El Salvador, Uruguay, Venezuela

Main definition of PROHIMET

- PROHIMET (Ibero-American Network on monitoring and forecasting of hydrometeorological phenomena) is
- a thematic network, of ibero-american scope, which gathers specialists, of several disciplines, especially worried about the topics of floods, although they also cope with the problems related to droughts and climate change.

Objectives of PROHIMET

PROHIMET is a linkage and a cooperation framework for seeking the following specific objectives:

- To enlarge the cooperation between the scientific communities of hydrologist and meteorologists, and to stimulate their interaction with other institutions which have relation with both, as it is the case of the civil protection services.
- To establish a multinational cooperation, in the ibero-american region, for the use of new techniques of hydrometeorological forecasting.
- To encourage staff training and capacity building in the use of modern tools for hydrometeorological monitoring, forecast and dissemination, as well as all matters dealing with the concepts of risk, hazard and vulnerability.
- To analyze and to evaluate the state of development and the lacks and needs of the ibero-american countries in regards to the forecast and warning systems and hydrometeorological phenomena related measures.
- To promote the development of pilot projects, that would be used as demonstration cases.

Activities

- Organization of workshops and training courses
- Preparation of dissemination material and provide free access to it
- Development of pilot projects as demonstration cases
- Internet forum: the members constitute an electronic discussion group

PROHIMET.- Multisectorial network

- The PROHIMET network gathers workgroups which develop their activities in different sectors:
 - National institutes of meteorology and hydrology
 - Hydropower companies
 - Water management organizations
 - City councils
 - Universities
 - Research and development institutions
 - Foundations and nongovernmental organizations

PROHIMET.- Multidisciplinary network

- Meteorologists
 - Hydrologists
 - Engineers, physicians and mathematicians
 - Architects and experts on zoning and urban planning
- It gathers dozens of members of 30 groups of 16 countries of Ibero-America
 - Argentina, Brazil, Bolivia Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Spain, Guatemala, Mexico, Nicaragua, Peru, Dominican Republic, Uruguay and Venezuela

Internet.- Basis for coordination y dissemination

The image displays four overlapping web browser windows, illustrating the use of the Internet for coordination and dissemination within the PROHIMET network.

Top Left Window (Internet Explorer): Shows the PROHIMET website at http://hercules.cedex.es/hidraulica/PROHIMET/br07/documentos_jornadas_2007.htm. The page features the PROHIMET logo, navigation links, and a section titled "Documentos Jornadas 2007". Below this, a table lists communications from the "Jornadas PROHIMET-Brasil 2007".

Título	Autor	Institución	Correos	País	pg	kb
IMPACTOS DE LAS INUNDACIONES EXTRAORDINARIAS	BRUNO A. AUSTIN	Universidad Católica de Santa Fe	brunoa@ucsf.edu.ar	Argentina	19	228
DELIMITACIÓN DEL DOMINIO PÚBLICO HIDRÁULICO Y EL ORDENAMIENTO DE LAS ÁREAS INUNDABLES EN LAS MARGENES DE LOS RÍOS DE LA PROVINCIA DE BUENOS AIRES	PABLO R. BARRIO ALVAREZ	Departamento General de Irrigación	pablo@irrigacion.gov.ar	Argentina	17	823

Top Right Window (Internet Explorer): Shows the PROHIMET website at <http://www.prohimet.org/>. The page features the PROHIMET logo, navigation links, and a section titled "Red iberoamericana para la vigilancia y pronóstico de fenómenos hidrometeorológicos".

Bottom Left Window (Internet Explorer): Shows the Google Docs interface at <http://docs.google.com/a/prohimet.org/#opened-by-me>. The interface displays a list of documents, including "PROHIMET-GPM-GV-2008" and "PROHIMET".

Bottom Right Window (Internet Explorer): Shows the Google Docs interface at <http://docs.google.com/a/prohimet.org/#opened-by-me>. The interface displays a presentation slide titled "PROHIMET-GPM-GV-2008" with the PROHIMET logo and text.

Courses and workshops

- International Course for Training on Background for Monitoring and Forecasting of Hydrometeorological Phenomenons
 - Santo Domingo (Dominican Republic), july 2005
- Ibero-American Workshop on Floods and Natural Disasters
 - Lima (Peru), october 2005
- Ibero-American Conference on Floods and Natural Disasters
 - Antigua (Guatemala), june 2006
- Ibero-American Workshop on Floods and and Forecasting of Hydrometeorological Phenomena
 - Mendoza (Argentina), november 2006
- International Workshop on Risk Management of Floods and Land Slices
 - São Carlos (Brazil), may 2007

Santo Domingo (Dominican Republic) 2005

International Course for Training on Background for Monitoring and Forecasting of Hydrometeorological Phenomenons

24 experts (teachers) from 11 Ibero-American countries

Argentina, Brazil, Costa Rica, Chile, Ecuador, Spain, Guatemala, Peru, Puerto Rico, Dominican Republic and Venezuela

- The following questions, among others, were shown:
 - The necessity of strengthening the cooperation between:
 - Hydrologist and meteorologist
 - Both of them with others (i.e. Civil Protection Services)
 - National and international events are needed to establish relationships between different specialist
- The organization of similar events was encouraged

Lima (Peru) 2005

Ibero-American Workshop on Floods and Natural Disasters

22 participants from 8 countries

Argentina, Chile, Colombia, Costa Rica, Spain, Peru, Uruguay and Venezuela

Main objective:

- To Present the proposals for PROHIMET pilot projects.
- To discuss about the evaluation criteria for the proposals.

Conclusions:

- The participants established the main requirements for the pilot projects

Antigua (Guatemala) 2006

Ibero-American Conference on Floods and Natural Disasters

35 participants from 16 countries

Argentina, Brazil, Bolivia Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Spain, Guatemala, Mexico, Nicaragua, Peru, Dominican Republic, Uruguay and Venezuela

One of the conclusions:

This kind of events facilitates:

- Interdisciplinary integration and communication
- Adoption integral solutions

One of the recommendations:

Multidisciplinary approach

Mendoza (Argentina) 2006

Ibero-American Workshop on Floods and Forecasting of Hydrometeorological Phenomena

45 participants from 11 countries

Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Spain, Peru, Dominican Republic, Uruguay and Venezuela

Conclusions:

- It is important to put in practice public education actions for flood risk, as well as capacity building programmes.

Recommendations:

- PROHIMET will prepare material for dissemination

Saõ Carlos (Brazil) 2007

International Workshop on Risk Management of Floods and Land Slices

33 participants from 16 countries

Argentina, Brazil, Bolivia Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Spain, Guatemala, Mexico, Nicaragua, Peru, Dominican Republic, Uruguay and Venezuela

50 attendants from Brazil

Conclusions:

- It is needed a wide and multidisciplinary perspective
- Education, capacity building, risk mapping, land use planning and early warning systems need special new efforts

Recommendations:

- To strengthen the current working scheme of PROHIMET
- To provide education and public awareness through the mass communication and broadcasting

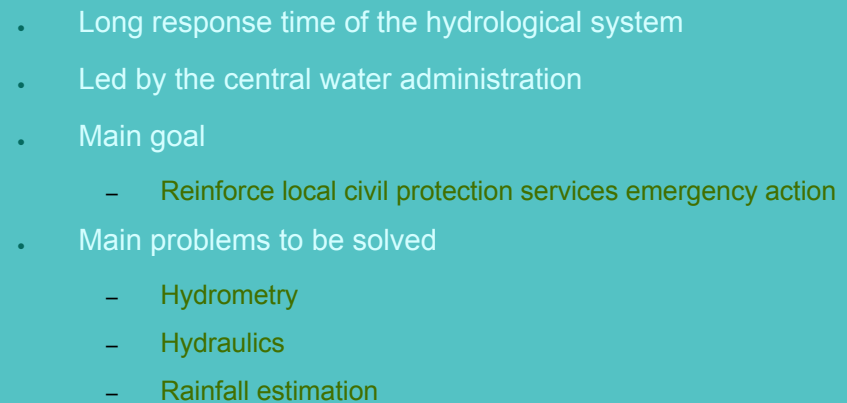
The pilot projects

- PROYECTO PROHIMET-YÍ

- Title: Pilot project for the early warning system of the Durazno city under Yí river floods (proyecto piloto de alerta temprana para la ciudad de Durazno ante las avenidas del río Yí)
- Country: Uruguay
- City: Durazno
- River: Yí

- PROYECTO PILOTO COLOMBIA

- Título: Hydrometeorological system of Nare and Guatapé river basins, located at Antioquía-Colombia (sistema hidrometeorológico en las cuencas de los ríos Nare y Guatapé, ubicados en Antioquia-Colombia)
- Country : Colombia
- Cities: El Retiro, Guarne, Rionegro, La Ceja, Carmen de Viboral, Marinilla, Santuario, San Vicente, El Peñol, Guatapé y San Rafael.
- River : Nare and Guatapé.



Pilot projects.- Results and benefit

- Demonstration cases
 - Approaches
 - Methodologies
 - Diagnosis
- Solution to specific real problems (by PROHIMET members)
- The interchange of knowlegde and experiences
 - Internet forum
 - Discussion
 - Interchange of knowlegde and experience
 - Workgroups/task groups
- Benefits at regional, national and local level:
 - Strengthening of institutional capacities
 - Improvement of cooperation
 - Capacity building

Supports

- CYTED.- Programa Iberoamericano de Ciencia y Tecnología para el Desarrollo
- OMM.- Organización Meteorológica Mundial (Agua, Tiempo y Clima)
- AECI- Agencia Española de Cooperación Internacional
- CEDEX.- Centro de Estudios y Experimentación de Obras Públicas de España
- INM.- Instituto Nacional de Meteorología de España
- Empresas.- Telvent, Tysa, ICSA
- Hosts of the events:
 - Subsecretaría de Ciencia y Tecnología. Secretaria de Estado de Educación Superior, Ciencia y Tecnología. (República Dominicana)
 - Universidad Nacional Mayor de San Marcos (UNMSM) de Lima (Perú) y Sociedad Peruana de Física (SOPERFI)
 - Departamento General de Irrigación. Gobierno de Mendoza (Argentina)
 - Centro de Formación de la Cooperación Española de Antigua (Guatemala)
 - Universidad de San Carlos (Brasil)
- Asociación Meteorológica Española (AME)

Link with other actions

- Associated Programme on Flood Management (APFM)
 - <http://www.apfm.info>
 - Integrated flood management (IFM)
 - Key elements:
 - Manage the water cycle as a whole;
 - Integrate land and water management;
 - Adopt a best mix of strategies;
 - Ensure a participatory approach;
 - Adopt integrated hazard management approaches.

PROHIMET and GPM-GV

- Some members of the GPM-GV community are involved in PROHIMET activities
- PROHIMET
 - is a community specialized in floods issues
 - gathers specialist of 16 countries
 - several institutions collect rainfall gauge station data
 - members expressed their interest in GPM-GV results and products
- Pilot projects
 - The goal of some tasks and workgroups is the solution of specific problems of rainfall estimation

Rainfall estimation based on satellite information

- It is needed because
 - Lacks of telemetric systems
 - Spatial distribution of rainfall
- It also provide
 - Wide insight on hydrometeorological phenomena
 - Useful qualitative information

Thank you for your attention

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